



FIGHTING COUNTRY ELEVATOR FIRES

May - 1943

● A year ago the Grain Dealers National Mutual Fire Insurance Company published *Fighting Fires In Country Grain Elevators*, a pamphlet which was well received by firemen generally and which aroused a considerable degree of interest in that subject.

Fighting Country Elevator Fires

of which this is the first issue, is intended as a "follow through" and will, we believe, prove to be as interesting and valuable as was the original publication.

GRAIN DEALERS NATIONAL MUTUAL FIRE INSURANCE COMPANY

FIGHTING COUNTRY ELEVATOR FIRES

R. D. MacDANIEL, Editor

Published semi-annually by MUTUAL FORUM PUBLISHING CO., INC.

1740 North Meridian Street

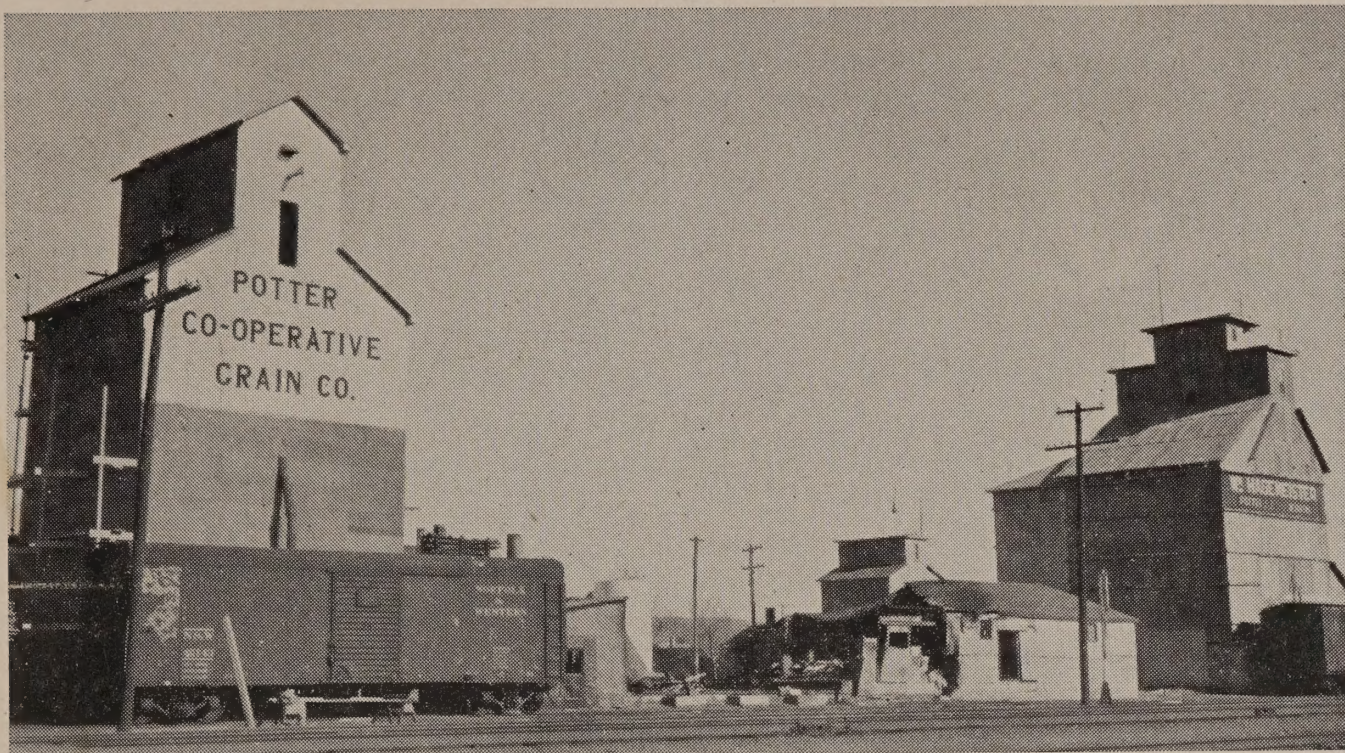
Indianapolis, Indiana

To promote a better understanding of the problems involved and to recognize the excellent work done by many departments in fighting fires in elevator properties.

Vol. I

MAY, 1943

No. I



● IMAGINE yourself looking in the direction a stiff wind was blowing one day last November when fire was discovered in the third floor of the frame Potter Mill at Potter, Nebraska. Although the fire was in the leeward corner of the building and could have been attacked with hose streams from that side, firemen unthinkingly opened up doors and windows on the windward side. Immediately the fire went out of control and calls for help were sent to Sidney and Kimball.

Water pressure wasn't so good, and besides that the connections of the out-of-town departments wouldn't fit the Potter fire hydrants (a disconcerting, unnecessary, but by no means unusual situation). The closeby elevator of the Cooperative was involved when the boys from Sidney arrived, but they took it on regardless of handicaps and managed to save it by vir-

tue of the water tank on their pumper and a tremendous lot of work.

Meanwhile the mill burned merrily. The Potter and Kimball firemen devoted their attention to it and to exposed buildings across the street.

In the third ring, Lee Hagemester, owner of the other elevator, and a companion with a line of hose, staged a battle all their own. Alternately cooling the exposed side of that elevator and attacking the flames progressing toward them through the nearby warehouse, their hopes waned and rose in direct proportion to the water pressure.

Finally, however, the firemen and their assistants gained the upper hand. Notwithstanding the mill was a total loss, surrounding property suffered comparatively little, which really was something, considering the circumstances.

Below, salvage pile at Alton, Kansas, and (right) the remains of the Gates Seed Corn Plant, Camargo, Illinois, following the fire of December 26.



ELEVATORS SAVED BY GOOD FIREFIGHTING

• DURING recent weeks there have been some exceptionally good exhibitions of firemanship in connection with elevator and mill fires.

On the night of October 2, fire was discovered in the Ewing Mill at Brownstown, Indiana—a three-story frame, iron-clad structure with adjoining warehouse, office and boiler room. A large frame, iron-clad elevator adjoined the boiler room opposite the mill. Because all windows were covered with closed wooden shutters, the blaze was not observed before it had gained great headway. Although the intense heat ignited woodwork inside the elevator at least five times, both the elevator and the mill office were saved, which was a mighty good job of firefighting. We congratulate Chief E. H. Miller and his volunteer department.

At 5 p. m. on November 9 a puff of smoke was seen coming from the cupola of the elevator of the Dodge City (Kansas) Co-operative Exchange. We do not know the details of the fire, but notwithstanding its prompt discovery the full-paid fire department was unable to save the main building from complete destruction. Adjoining buildings consisting of a warehouse, office and mill room containing heavy stocks of merchandise and expensive equipment were, however, saved without damage.

Not so recent was the fire at Axtell, Nebraska, where Ebner Landstrom is not only manager of the Axtell Grain and Elevator

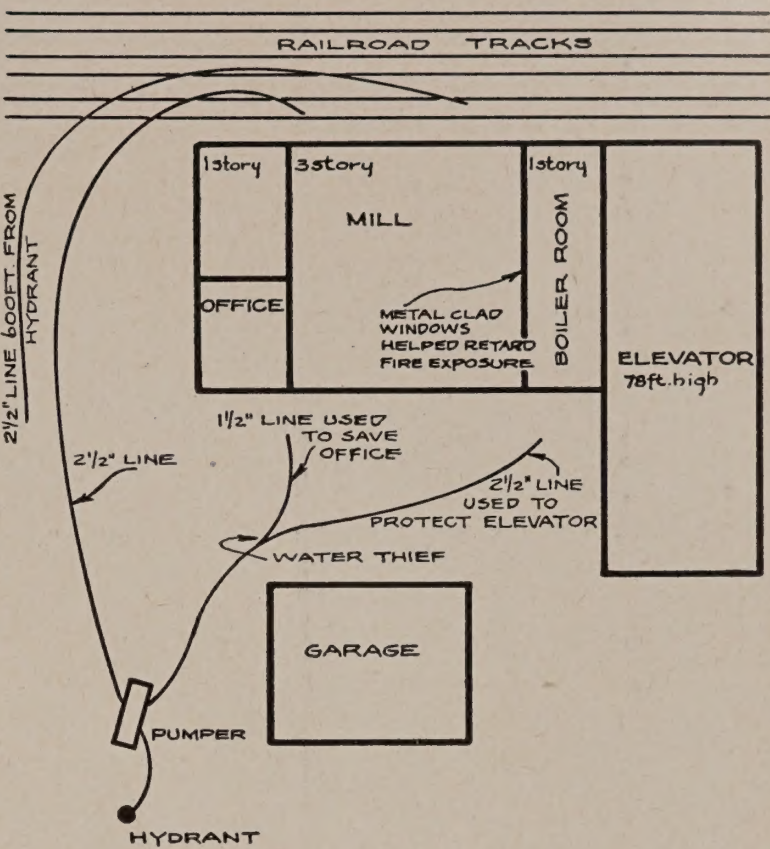
Company but is chief of the Axtell Volunteer Fire Department as well. After being on duty at another plant for several days, Mr. Landstrom returned to the elevator one day in July and, just to make sure everything was in good shape, made a personal check of the elevator when they shut down late that night. He still can't understand how the cupola motor, which he stepped over while making his inspection, could have caused a fire within the next few hours, but it evidently did—anyway, the interior of the cupola was on fire at six o'clock the next morning.

First at the elevator following the alarm, Chief Landstrom (note the change in title) opened the driveway doors and was debating whether to attempt going to the cupola when the cupola water barrel came hurtling down the well. That made up his mind for him and he went outside, closing the doors to shut off the draft. The pumper arrived just then (it had been out of commission for two weeks and was just returned to service the evening before) and a ladder was raised to the elevator roof. Although he could just as well have taken a 2½-inch line, Chief Landstrom knew that Manager Landstrom had a lot of grain in that house that would be damaged by excess water, so he took a 1½-inch line to the elevator roof. Then, with the assistance of the convenient loading-out spout, he pulled himself to a cupola window, from which point he extinguished the fire,



which by that time had gotten a good start in the roof. There was a lot of fire in this cupola—the elevator head had to be rebuilt and a new roof put on—consequently Chief Landstrom’s demonstration of what can be done with a small line when it is used properly is especially noteworthy.

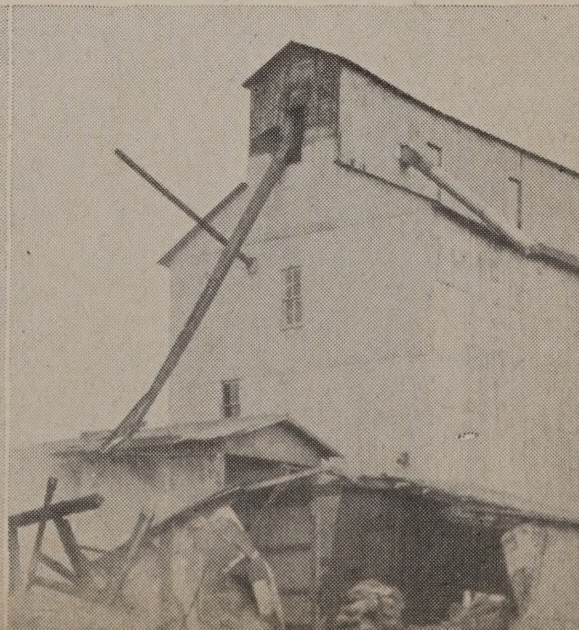
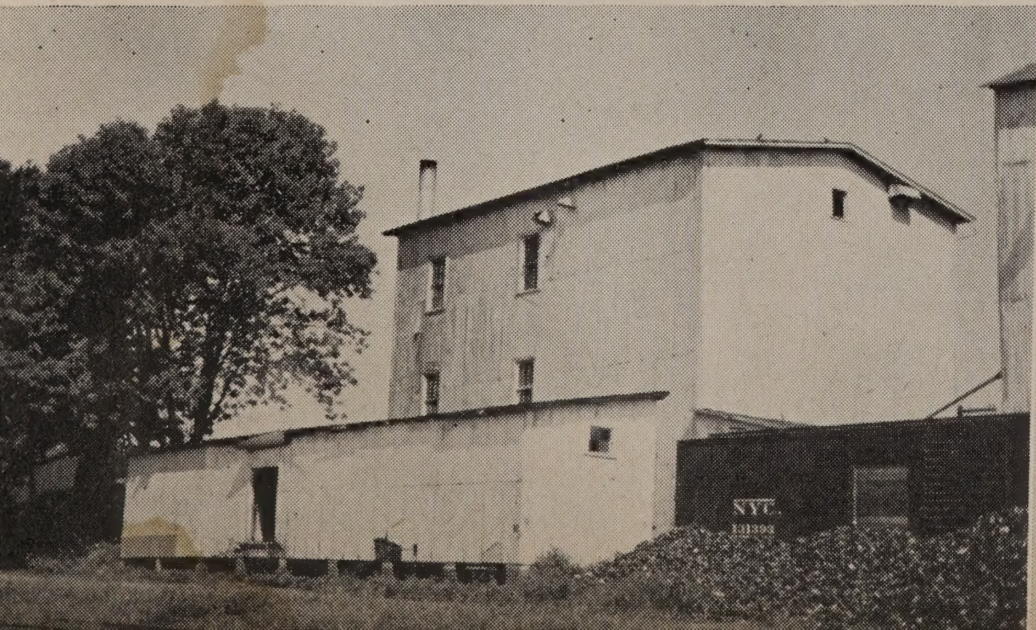
Then, at Danville, Indiana, the volunteer department with assistance of their civilian defense auxiliaries gave a rehearsed demonstration that was a honey. The main building of the Hendricks County Farm Bureau consisted of a converted three-story frame flour mill, used as a feed mill and warehouse, with an adjoining soybean oil extraction plant—an experimental unit designed for country operation. Detached just a few feet was a 20,000-bushel frame, iron-clad elevator. The Danville firemen have several times in the past brought their equipment to the Farm Bureau plant and practiced just what they would do in event of fire in either the mill or the elevator. With only one available fire hydrant, they knew that in event of a fire in either of the buildings they could not afford to make any mistakes. So when at 1 o’clock in the morning of November 28 the mill was discovered on fire the volunteers knew exactly what to do—and did it. The mill was beyond saving when they got to it, but notwithstanding the elevator, which was filled to the roof with soybeans, was considerably scorched and actually caught fire once, the actual damage to it was practically nothing. This was an outstand-



ing job of preparation and performance of which any department might well be proud.

Those of our readers who are members of volunteer fire departments will be particularly interested in the above sketch showing the layout at the Brownstown fire. Note that Chief Miller evidently is an advocate of the use of the water thief, which stood him in good stead upon this occasion.

On the opposite page are views of the plant at Dodge City before and after that fire (unfortunately taken from opposite directions) while those below show the buildings involved in the fire at Danville, Indiana.



The Brownstown Mill Fire



● RECEIVED too late to appear last month with the story of the fire, these pictures show the mill and elevator of the Ewing Mill Company at Brownstown, Indiana, before and after the fire of October 2. Noting the close proximity of the two buildings, you can appreciate the fine job of fire-fighting done by Chief E. H. Miller and his volunteer department in keeping the fire out of the elevator. The Chief says the boys had to work from behind shields to protect themselves from the intense heat.

Chief Miller informs us that his present organization is but two years old—only one other member than himself having had previous experience. BUT—and we think the emphasis is proper—during those two years the members of the department have all taken the course of training as outlined by the Indiana Fire Service Training School. To our way of

thinking, that was something! We'll wager the good citizens of Brownstown didn't know the boys were doing that and were really surprised to see how much the boys had on the ball when this serious fire occurred.

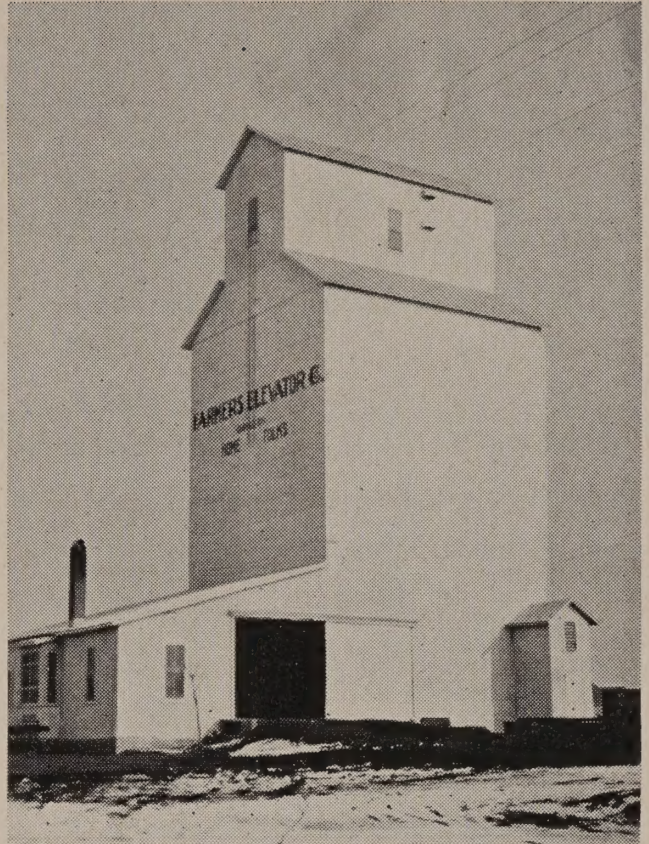
Volunteer firemen all over the country are doing just what those men at Brownstown did; they're studying how to be firemen rather than wait until some neighbor's house takes fire and then get experience the hard way—hard for them and the householder both. And what might surprise a great number of our good citizens still further, most of these volunteer firemen are donating their time and are paying their own expenses to these schools. It always has seemed to us that about the least a community could do in return for such display of civic consciousness would be to relieve these chaps of paying for their education, which is, after all, for the benefit of the community.

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R For Improved Firemanship:
Attendance at state and district fire schools.

Membership in Volunteer Firemen's Section of the National Fire Protection Association.

A Good Idea

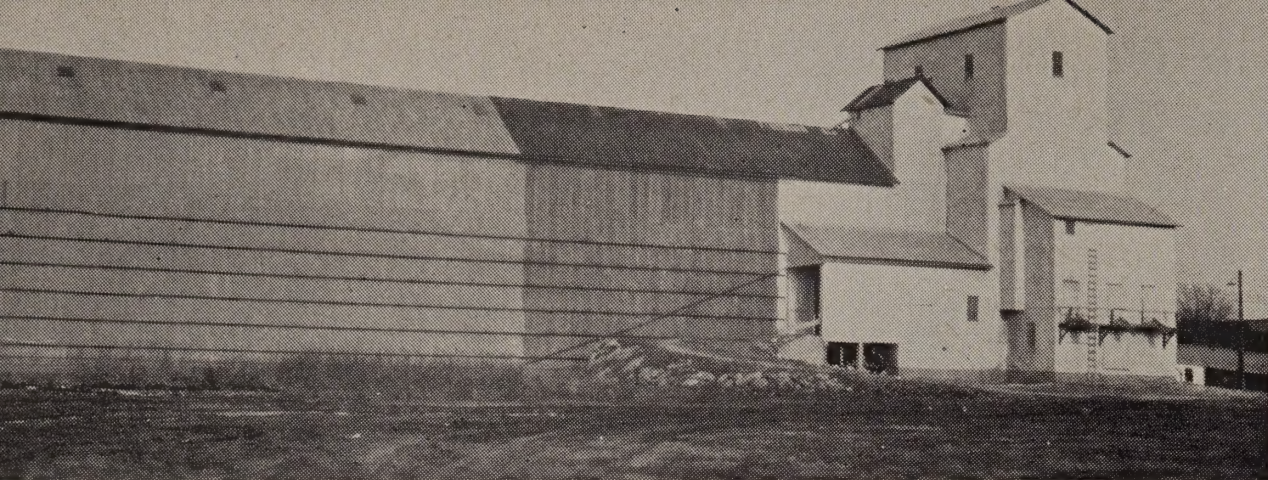
● LAST year the manager of this elevator at Brainard, Neb., and the local fire chief got their heads together and decided an outside ladder to the cupola would be very handy in event of fire in that location. Also, it would be an easy means of escape for anyone trapped by fire. The result is shown in the picture: a metal ladder was extended down from a cupola window to within about 16 feet of the driveway roof — out of reach of adventuresome boys but easily reached with the fire department's hook ladder. The ladder is set well out from the building so that a fireman can hook a leg over a rung, thus leaving both hands free for the handling of a hose or other equipment.



The Jeep

● BECAUSE a number of people who thought the detailed description of this ingenious, home-made piece of fire-fighting apparatus, as given in our August issue, was some kind of a joke, our Illinois field representative stopped at Lawrenceville, Illinois, the other day and made a few pictures of the original. And if there may be any doubt as to the effectiveness of this equipment when used on small fires (and some not so small, if you know how to do it), just write to the boys at Lawrenceville and they will set you straight. In the picture, from left to right, are Clyde Ike, Assistant Chief Harold Meeks, Chief Bill Alexander and Lloyd Wethrow.





Good Work Prevents Serious Loss

• IF THIS were your elevator, filled to the roof, and you should suddenly discover a fire in the center of the huge crib section under thousands of bushels of oats—what would you do?

What T. E. Hamman and his assistants, which at one time included three fire departments, did, constitutes something of an epic. Without any coaching from anybody—we didn't even have a field representative on the ground—Mr. Hamman gave a perfect demonstration of what to do in case of fire: from first to last he simply did what he would have done had he had no insurance—and he did a swell job.

The turn of the year found the elevator at Hindsboro, Illinois, jammed full of oats and soybeans—in fact, so pressed for capacity had they been that the outer end of the airway down the center of the 160-foot crib was filled with several thousand bushels of oats. This airway is about 30 inches wide and a drag belt runs the length of it. At about 10-foot intervals cross braces run across the crib, at about 10 feet above the floor, and there is a light circuit attached thereto with a light at each brace, those in the outer half of the building being controlled by a separate switch.

Ordinarily when the capacity of the airway is needed the light bulbs are removed and burned-out fuses screwed into the sockets which, of course, become covered with grain. But with some new help on the job this detail was overlooked when the grain was run in last fall and the bulbs

were nicely buried. The circuit in the outer end, however, was turned off until January 2, when they started to unload the airway. When the first light was uncovered, a new man, without thinking there were more under the remaining grain, turned on the circuit. On January 6 fire was discovered in the remaining oats—at the two outer cross braces located 10 and 20 feet, respectively, from the end of the crib, it developed later.

The fire department arrived promptly, but they didn't throw any water—they simply ran a charged line into the crib and stood by. Employees continued to empty the airway by means of the drag belt until they got close to the fire, and then the burning grain was wet down. But the wet grain choked the belt, and it became necessary to scoop it along the narrow space until the choke was relieved, then the belt was started again. When the source of the fire was reached, the burning grain in the bins was wet down by pushing a nozzle into it and it was taken out through openings cut into the bin walls at the floor level. Then the process was repeated until the next fire area was reached. It was slow work, mighty slow, because all concerned were trying to prevent any unnecessary loss to either grain or building.

Mr. Hamman is high in his praise of the degree of cooperation shown by the Hindsboro firemen who easily could have insisted on deluging the place and getting it over with quickly. With two other departments backing them up they could have

taken a chance on opening things up, but they didn't choose to do so. The Arcola and Oakland departments stood by most of the day ready for any eventuality while the Hindsboro men did the work—altogether there were 25 men on the job for several hours, and the Hindsboro department kept men at the plant until the next day.

After the fire definitely was out, Burt Wise, local manager, took over disposition of the some 4,500 bushels of damaged grain that had been removed from the building. It would have been easy enough and much simpler to have given it away for a song, but here again the self-imposed rule was to proceed as though there was no insurance involved. And you can believe it or not, that damaged grain was actually sold for more than it was worth "on track."

Mr. Hamman has suggested that the rather minor repairs necessary to the building be deferred until spring "when they can be made at least expense."

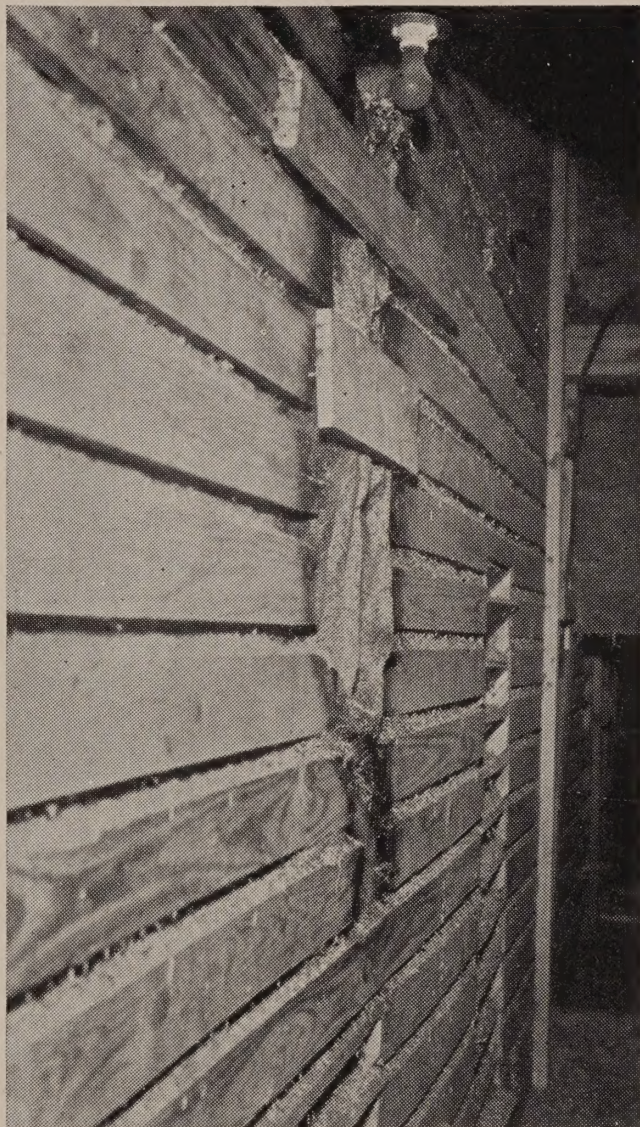
The proceedings related required the better part of a week, during which time our only contact with Mr. Hamman was when he 'phoned us to report the fire and tell what was being done. Considering the possibilities the results achieved were extraordinary, not to say a bit overwhelming. And Mr. Hamman insists that they did no more than any member of a Mutual insurance company might be expected to do. Maybe not, Mr. Hamman, but you and the boys get an A+ grade.

Modesty prevented Mr. Hamman from sending us a picture of himself. But he sends us this one of—he says—the men to whom the credit belongs. From left to right: Fire Chief Hackett, manager and part owner Burt Wise, and engineer Paul Clark. Certainly there is enough credit due for everybody concerned to have a large share. Congratulations, boys, on a fine job!

OUR PAPER



The picture above shows one of the burned cross braces, while that below shows the slatted bin wall below the brace. Notice how the fire spread both down the wall and across on the under side of the brace to the opposite bin wall.



Mr. Bruninga Fights a Fire

● WHEN Harry Bruninga, owner of the Glasford Grain & Milling Company at Glasford, Illinois, returned from lunch on the afternoon of January 13 he found the interior of the cupola of his plant full of flames.

Glasford has a volunteer fire department, which was promptly summoned, but Mr. Bruninga and his elevator man didn't wait for them; they went to the cupola—or as near to it as they could get—and started to work on the flames with extinguishers and water from the fire barrels. Fortunate it was they did, for while Glasford does have a volunteer fire department, eight of the members have been lost to the armed forces, and at the time of the fire ten others were working in defense plants in Peoria, several miles distant. So it was fifteen minutes after the alarm sounded before the one volunteer fireman in town could get the truck to the elevator.

Too Much Fire

Meantime Mr. Bruninga and his helper were making a losing fight—the extent of the fire was simply beyond the point where first-aid equipment was of any value. When the truck arrived and the lone fireman “hooked up” to a hydrant, Bruninga took the hose only to find the pressure insufficient to throw water to the cupola. So he climbed part way up the cob spout. But even from there insufficient water reached the fire to have an appreciable effect. There was just one more thing to do: Take the line up inside the building—and Bruninga and his helper did just that.

Notwithstanding the entire inside of the cupola was involved, the final effort was successful. It was a tough job as may be imagined from the fact that \$1,500 damage was done to the building and machinery. But what was even more

remarkable was that while doing such a job, Mr. Bruninga kept in mind that he was working over several bins of grain that would be seriously damaged if an excessive amount of water was used. As a result of his carefulness with the hose line, the water damage to grain was only about \$100. Considering the nature of the fire, such small damage to grain is almost unbelievable.

Some Good Results

Two very definite results are to come from this experience. In the first place, Mr. Bruninga is going to install a normally closed damper in the cob spout to replace the one that was supposed to be closed manually (but wasn't) whenever the spout was not in use. Beyond question the fire was due to shucks in the cupola, the result of a heavy run of “shucky” corn the morning of the fire, being ignited by heat or sparks that had traveled up the cob spout.

The second result was that the good people of Glasford suddenly awakened to a realization that while they might have a fire department they actually had no fire protection during the daytime when most of the firemen were at work away from town. Incidentally, that is a situation that exists in a lot of other small towns just now, and unless they do something about it their experience may be unfortunate. But the citizens of Glasford did a very sensible thing. Harry Bruninga had, they reasoned, demonstrated that he could do a real job of fire fighting. Furthermore, his business kept him in town every day. So now Mr. Bruninga is the acting chief of the fire department at all times when the regular chief is absent—and the department has been augmented by additional men so that “Chief” Bruninga won't again have to do so much work in case another emergency arises.



● FIRE starting in the cupola of Elevator A, owned by the Standard Elevator Company at Brook, Indiana, early on Sunday morning, February 14, completely gutted the large building and caused heavy loss to the approximately 50,000 bushels of grain and beans in storage at the time.

Likely the fire started in one of the elevator heads which had been in use shortly before the house was shut down two or three hours before the fire was discovered.

The fire had progressed to such an extent before discovery that it was impossi-

ble to enter the cupola from the inside and no means had been provided for access otherwise. Consequently, the volunteer fire department, which was on the job promptly, could do little but protect adjoining buildings and wait for the fire to burn down to where they could reach it from the ground.

Without any doubt, had the cupola of this elevator been equipped with a system of sprinkler heads and a standpipe to which the firemen could have connected their hose, the elevator could have been saved with comparatively little loss.

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Elevator of Glasford Grain & Milling Company, Glasford, Illinois, damaged by fire on January 13. Exterior effects give some indication of the extent of the fire in the cupola.

The other picture is of Harry Bruninga, owner of the elevator, and Roy Trobaugh, his elevator man, whose determined efforts with first-aid equipment during a 15-minute wait on the fire department saved the plant from destruction. "Chief" Bruninga, with his hands behind his back, seems to be endeavoring to appear nonchalant after his distinguished performance.



Another Good Job of Fire Fighting

● FIRE started in the cupola of the north elevator at Manlius, Illinois, late in the afternoon of March 29 as the result of a choke in an elevator leg which caused the drive belt from the motor to ignite. An improvised belt "guide" (which has since been removed) prevented the belt from jumping off the pulley. The elevator man, an elderly person, went to the cupola and swept up the burning parts from the floor but did not make a careful inspection of ledges and the top of the elevator head where other embers may have lodged. Then without reporting the incident to anyone he went home. About midnight a woman living in town noticed a light in the elevator. Closer observance indicated there was a fire in progress and she gave the alarm. The volunteer fire department responded promptly, laid out 700 feet of 2½-inch hose with a wye connection to which were attached two 150-foot lengths of 1¼-inch hose.

Ward Boyce has been chief here for the past year, after serving about five years on the department. Upon reaching the elevator he immediately climbed the ladder to the cupola to size up the situation. Then he sent up his assistant with one of the small lines on the manlift, and he himself returned by way of the ladder. The two of them worked the fire until all flames were extinguished, then knocked out the windows and opened the cupola door to ventilate the place. Two men were then stationed there for the rest of the night.

Chief Boyce informs us that he was assisted in fighting this fire by information

received last June at the Illinois fire school, where the subject of elevator fires was discussed, and that he had also read "Fighting Fires in Country Elevators" (published by Grain Dealers Mutual) which gave him some further ideas.

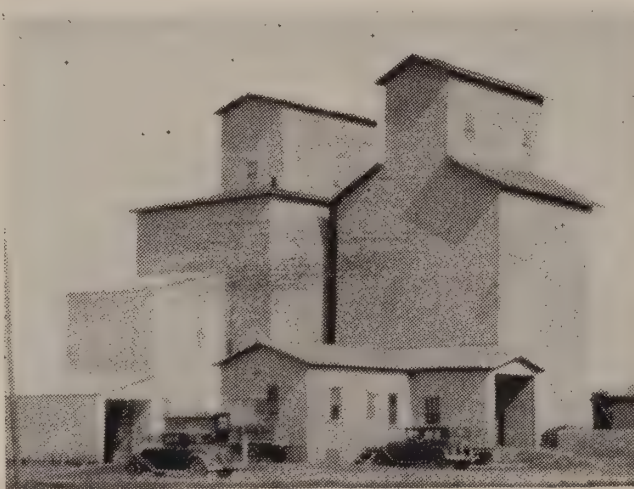
As an indication of what might have happened had Chief Boyce not been so well posted on what to do in a situation of this kind: While he and the assistant were doing a most effective job at close range in the cupola, some other members of the department who were still imbued with the old-fashioned water-throwing ideas began to throw water against the

iron-clad sides of the building. This futile operation reduced the pressure to the line in the cupola. Without knowing the cause of the lowered nozzle pressure the Chief called for more pressure at the pumper, which was immediately given.

Then one after an-

other several lengths of hose burst. Finally the Chief came down from the cupola to investigate, and upon learning that the other line was being used to no good purpose he ordered it disconnected, after which the extinguishment was promptly completed.

This fire again emphasizes the importance of impressing all elevator employees that following a small fire inside the building a watch should be kept for at least twelve hours. Any insurance company will gladly pay the cost of such precaution rather than run the chance of a large loss. Make sure all of your employees understand this; to fail to establish a 12-hour watch following a small fire is taking a serious and unnecessary risk.



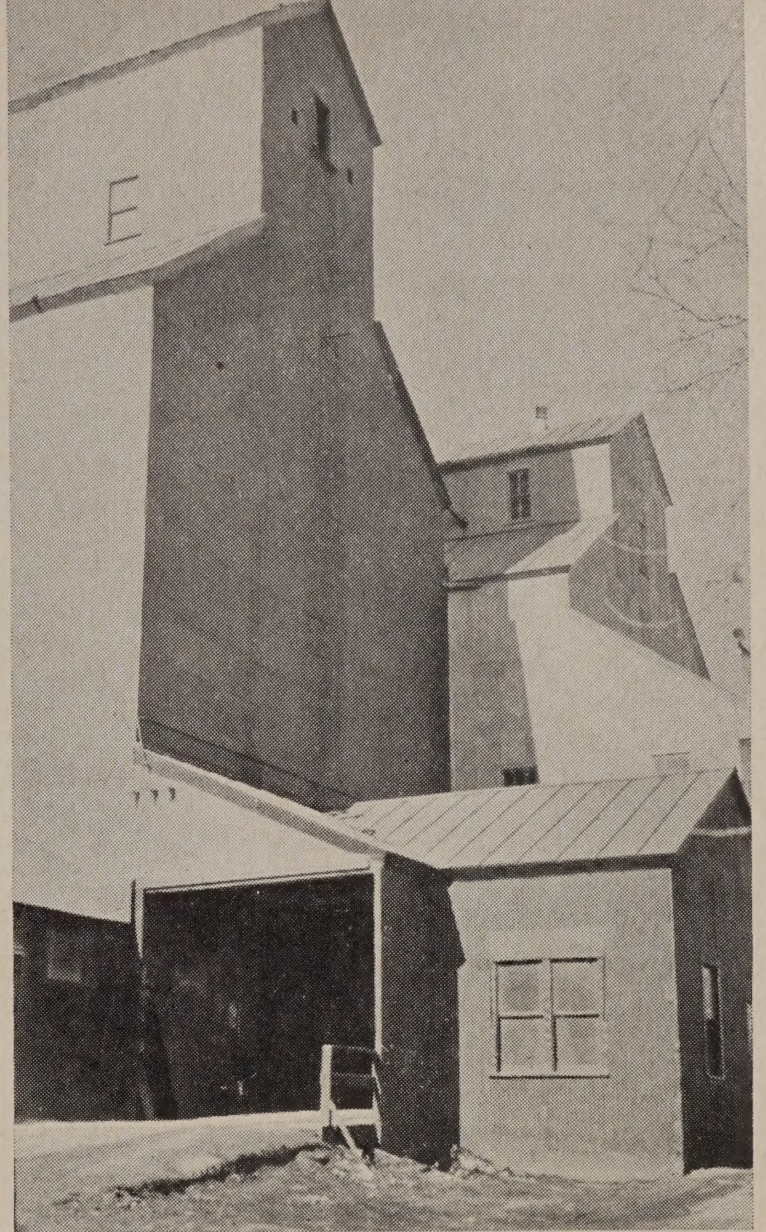
Costly Fire Averted

● CHIEF J. W. LEMAR and the boys of the Aberdeen, South Dakota, fire department did a fine job of fire fighting when at 7 o'clock on the morning of February 25 they were called to the large plant of the South Dakota Wheat Growers to handle a cupola fire. The elevator was well filled and, with the large attached feed mill and wareroom, represented at the time values in excess of \$80,000.

It seems that about 8:30 the night before a bearing on one of the cupola motors went bad and flared up. The elevator man promptly gave the alarm to which the fire department made immediate response. However, the blaze in the motor had been extinguished by the time the firemen arrived, so they returned to quarters while the elevator man and Manager Croes wet down the cupola floor, carefully examined the bins underneath and then removed the rotor and thoroughly cooled down all parts of the motor. In fact, they stayed around until eleven o'clock watching things carefully, and then decided the danger period had passed.

But before going home, Manager Croes asked the night police to keep an eye open for possible trouble. It is well he took that precaution for shortly before seven the next morning the police noticed a light in the cupola. This time the firemen really had a fire on their hands. Apparently an ember from the motor fire had lodged in a crack at the east end of the cupola, for the wall at this point was burning. Also there was fire on the lower floor, evidently started by embers dropping from the fire above.

Chief LeMar and his men did a quick and efficient job in holding the building damage to a nominal amount while at the same time using a minimum of water so that damage to grain was comparatively small. But, the circumstances being what they were, we should have expected just that kind of a job from the Aberdeen Fire Department, for Chief LeMar inspects



the elevators in his town at frequent intervals and so knows his way about when he is called in on business. Furthermore, he has always been a strong advocate of fireman training, is host to the annual South Dakota Fire School and serves as one of its instructors. It is but natural that his department should be prepared and able to do a workmanlike job whenever called upon.

We understand that on April 1 a county fire school was held in Aberdeen, at which time their county fire fighting organization was perfected—and one of the subjects on the program was "Elevator Fires." Our congratulations to Chief LeMar and his fine department and to Commissioner of Public Safety R. S. Wallace who stands squarely behind the department and is sponsor of the county organization. Public service of that kind deserves—and gets—popular support. We predict that serious fires will be few and far between in Brown County.

Fighting Fires Before They Happen

- If the management of the Stillwater Milling Company, of Stillwater, Oklahoma is the least bit curious as to how their local fire department would go about fighting a fire in their plant, Chief Ray Pence would be glad to tell them. In fact, he would do even better than that, he would give them a complete plan including map showing disposition of apparatus, that has been worked out in advance and is ready to be put into operation at a moment's notice.
- Chief Pence and his department have a national reputation for innovations in fire fighting and are strong advocates of what has come to be standard practice among the better departments—the complete planning in advance for combatting possible fires in their important buildings. The plan for the Stillwater Milling Company is as follows:

Defense Assignment

First Alarm: Engine Companies Nos. 1, 2 and 3, Ladder Company No. 4, and Squad Company No. 6.

Defense

ENGINE COMPANY NO. 2 will be the first company on location. If the fire is of any magnitude at all they will set off the monitor nozzle at the north side of the mill and lay *two* reverse lines to the hydrant at the S. W. corner of East 6th Street and Perkins Road and hook up the pump. An additional line of 2½" hose will then be put into operation across the creek to the S. E. corner of building.

ENGINE COMPANY NO. 1 will advance to the west lake via driveway to the park and take draft as close to the dam as possible. Two lines are then to be pulled off by hand and advanced across dam to the desired location on the north and west sides of building.

SQUAD COMPANY NO. 6 will advance to the fire, depending upon its origin and advance all 1½" hose lines. If the fire is not brought under control by this first defense, Squad Company No. 6 will then be moved to the hydrant just

across the tracks near the Rock Crusher and hook up pump to feed the deck gun on Ladder Company No. 4 truck.

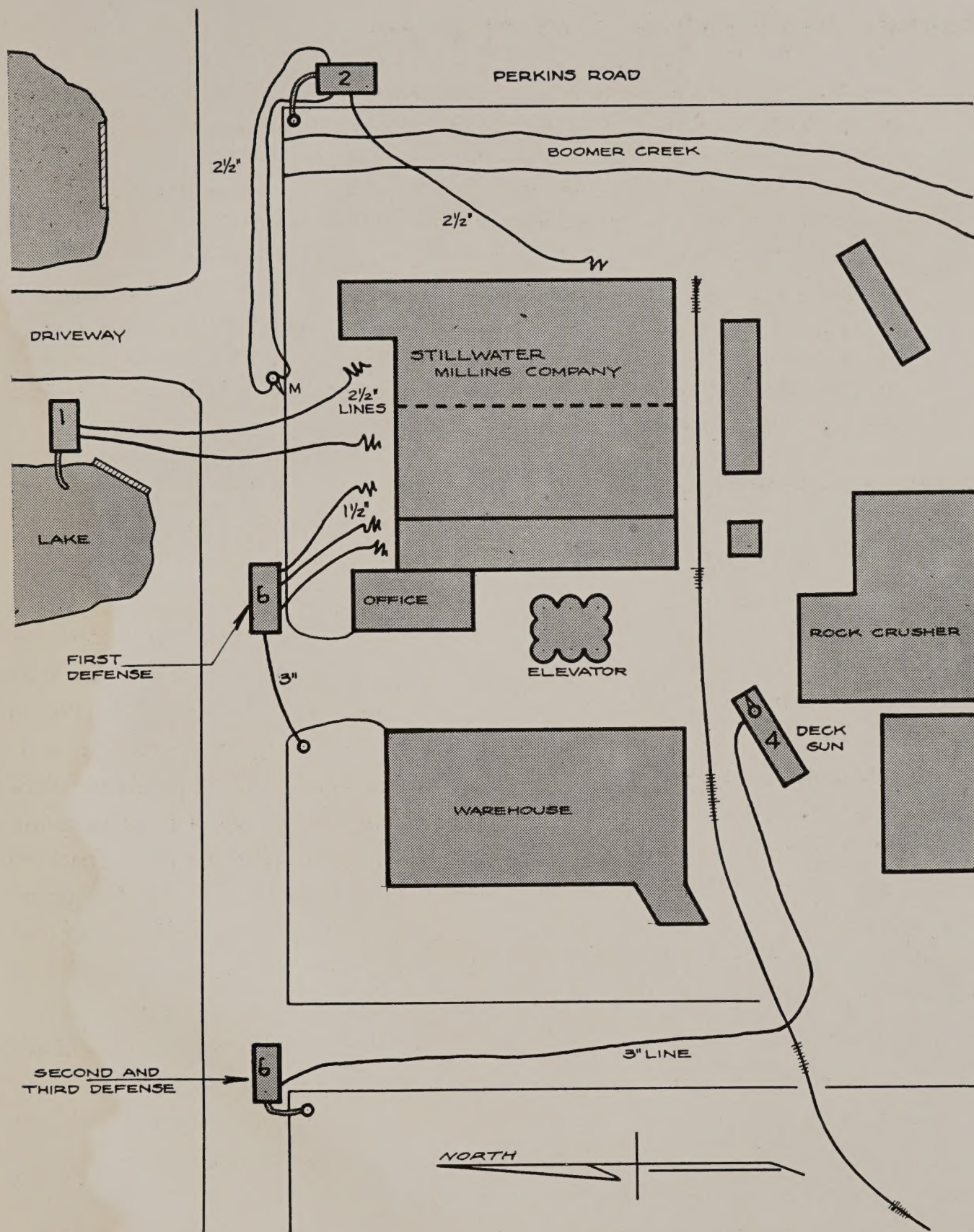
ENGINE COMPANY NO. 3 lays a 3" feeder line into Squad No. 6 truck for first defense from the hydrant just west of the mill office. If Squad Co. No. 6 must be hooked up there must be a 3" line laid from its discharge to the deck gun on Ladder Co. No. 4 truck by going down the driveway and turning back to the south side of the building (see drawing). After this laying of hose, Engine Co. No. 3 will go back to Central Fire Station to be held in reserve.

LADDER COMPANY NO. 4 will advance down the driveway to the location shown in the drawing and be ready for action as previously described.

NOTE:

In the event piles of grain are on fire solid streams are not be used—*only fog*. It may even be necessary to let a building burn away from stored grain in order to salvage the greater percentage of grain by using fog for extinguishment.

Extreme precaution must be taken in this building during any fire to prevent arousing dust clouds which in turn will cause dust explosions.



• We are indebted to Chief Pence for a complete set of plans, similar to that given above, which cover all the principal buildings in his city. This is something of which he and his department have every reason to be proud and we are sure the citizens of Stillwater, knowing of these plans, have a feeling of security that otherwise would not exist and a confidence in their department that is highly deserved.



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